

Docket No. W-354-02
Serial No. 10/597,829
Response to Office Action

The Office Action of April 9, 2008 is a first office action and is non-final.

The Examiner has rejected all pending claims under 35 USC Section 103(a) as being obvious over U.S. Patent 6,102,449 to Welsh (Welsh) in view of U.S. Patent 5,848,813 to Albrecht (Albrecht).

The Examiner has raised no objections or rejections under 35 USC Section 112 with respect to clarity or indefiniteness, or Section 102 with respect to novelty.

Applicant will address the Examiner's rejections, objections and concerns in the Discussion that Follows.

II. Claims 1 – 10 Are Inventive

The Examiner has rejected all pending claims under 35 USC Section 103(a) as being obvious over Welsh in view of Albrecht. Reconsideration of the Examiner's rejections in this regard is respectfully requested.

The Examiner contends that Welsh discloses a coupling element comprising a male sealing element having a first end, second end and a longitudinal axis extending between the first end and the second end. The Examiner further contends that Welsh discloses a male sealing element having a generally cylindrical shape defining a fluid passageway therethrough. The Examiner further contends that the male sealing element is slidably coupled to a ferrule (160) and the first end defines a conical sealing surface, wherein a female sealing element (132) defines a complementary conical geometry. The Examiner continues, Welsh discloses a biasing element (154) disposed between a retaining ring (170) and the ferrule for biasing the first end into direct abutting contact with the female sealing element with a biasing force sufficient to form a fluid-tight seal between the first end and the female sealing element.

The Examiner acknowledges that Welsh does not teach or disclose the conical sealing surface having a mismatched angle to the female sealing element. However, the Examiner contends such a mismatched angle is taught by Albrecht. And, since Welch and Albrecht are concerned with tapered sealing surfaces it would be obvious to one of ordinary skill to fabricate a conical sealing element with a mismatched angle to the female sealing element.

Applicant respectfully submits that the Examiner's characterization of the Welsh disclosure is in error or misleading. The characterization of the teaching of the Welsh reference shifts components and elements from one part to the other in order to argue obviousness. This shifting, attempting to make the reference fit, where it otherwise doesn't, is itself an indication of inventiveness. And, the application of the Albrecht reference adds little to the rejection after the true nature of the parts and components of Welsh are known and understood.

Embodiments of the present invention have little in common with the devices of Welsh. Contrasting Figure 1 of the present Application to Figure 2 of Welsh, whereas the device of the present application presents six parts, seven if one counts the female sealing element, Welsh presents at least eleven parts. The parts of Welsh present different structures, operate in a different manner to achieve a different result.

The present invention has a male sealing element 9, having a first end having a conical sealing element 17. This conical sealing element 17 at the first end of male sealing element 9 is received against the female sealing element.

Welsh does not have a male sealing element as defined in claim 1. Welsh discloses a capillary 10. The capillary 10 does not have a first end for sealing to a female sealing element. The capillary 10 of Welsh must have an annular seal 160 fitted to a nose cone 118 to effect sealing engagement with the female opening to which it is fitted. The Examiner's rejection suggests that at least one of the annular seal 160 or the nose cone 118 is a ferrule. However, Welsh does not refer to the nose cone 118 as a ferrule and the nose cone does not appear to function as a ferrule. If the nose cone 118 was, indeed, a ferrule, the nose cone 118 would have no need for annular seal 160.

Welsh is well aware of ferrules and teaches the use of a ferrule 114 in a different context. The nose cone 118 is not a ferrule.

Thus, Welsh does not disclose a male sealing element with a first end for sealing engagement to a female sealing element. Welsh secures and seals the capillary with an annular seal, not with the terminal end of the capillary.

The Examiner argues that the "male sealing element is slideably coupled to a ferrule (160) wherein said first end defines a conical sealing surface". However, if the words "first end" is in reference to the capillary 10, a careful review of the Specification reveals no conical sealing surface associated with the capillary and none is depicted in the Figures. If the conical sealing surface to which the Examiner refers to is associated with the "ferrule", such surface is not associated with the correct analogous element. And, the "ferrule" of Welsh to which the Examiner refers is not a ferrule but a nose cone. The sealing surface, annular seal 160, of Welsh is annular not axial as described in the present claims.

The Examiner argues, Welsh discloses "a biasing element (154) disposed between a retaining ring (170) and the ferrule for biasing the first end into direct abutting contact with the female sealing element with a biasing force sufficient to form a fluid-tight seal between the first end and the female sealing element". The Examiner's argument in this regard is contrary to the express disclosure of Welsh.

Welsh describes his device as having an "annular seal biased by a biasing system so as to realize a fluid-tight seal between the receiver port surface and the aft portion of the

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annular projection.” See: Welsh at column 5 lines 16 – 18. Therefore, Welsh does not disclose as the Examiner contends, “biasing the first end of the male sealing member into direct abutting contact with the female sealing element … to form a fluid-tight seal.” The biasing of Welsh is directed to a different structure, acting in a different manner, creating an annular sealing force, to achieve a different result, sealing removed from first end of the capillary.

Clearly, Welsh does not disclose the conical sealing surfaces having a mismatched angle to the female sealing element. The Examiner acknowledges as much. However, Welsh does not effect sealing with the capillary against a female sealing surface. Welsh does not have a male sealing member in the sense of the present invention. Welsh does not bias the same elements or bias analogous elements.

The Examiner’s application of the Albrecht reference with respect to mismatched angles adds little to the rejection because it does not address the deficiencies of Welsh. Welsh does not seem to effect sealing with the cone member 118. Welsh uses the annular seal 160 to effect sealing. Mismatched angles would seem to have little relevance to the annular seal 160 and its corresponding surfaces.

The references, Welsh and Albrecht are not only traveling in different directions, they are not on the same road. Welsh is teaching separate and distinct annular seals and Albrecht is teaching mismatched angles. Welsh has no need for mismatched angles with an annular seal.

Applicant respectfully submits the inventions of the present Application as set forth in the claims are not obvious in view of Welsh and Albrecht. The references of record do not teach, disclose or suggest a male sealing element 9, having a first end having a conical sealing element 17. This conical sealing element 17 at the first end of male sealing element 9 is received against the female sealing element.

There being no further rejections, Applicant submits the present Application is in condition for allowance.

III. Conclusion

Applicant respectfully submits the present Application is in condition for allowance which action is earnestly solicited.

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